

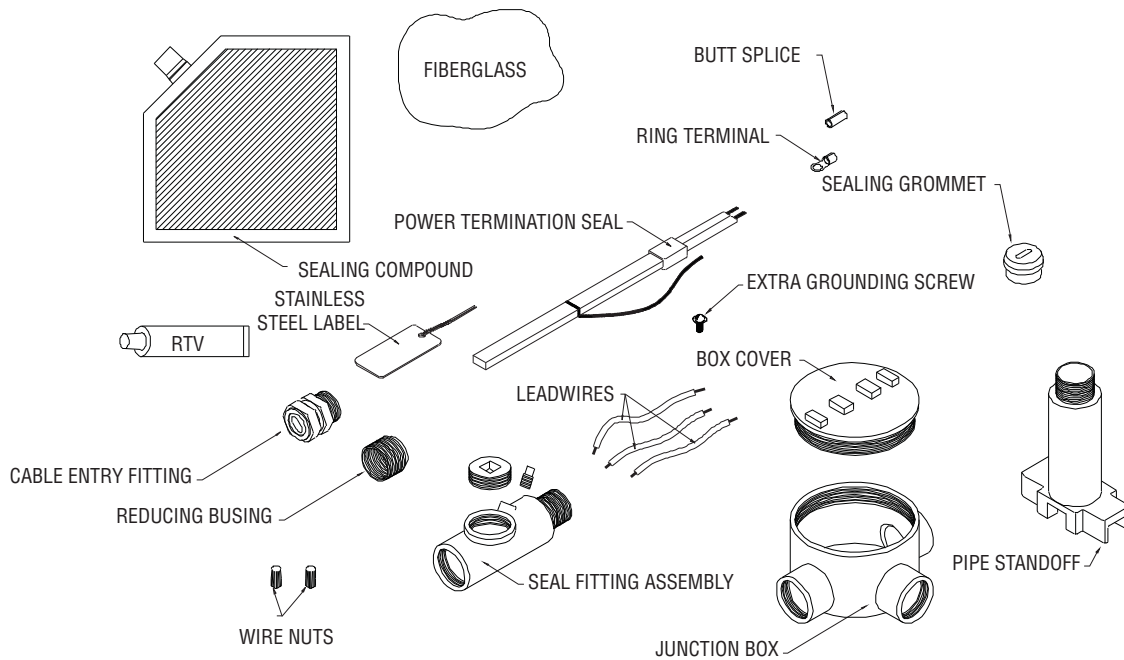
# Chromalox®

## Installation Instructions

### SERVICE REFERENCE

DIVISION 4	SECTION RT
SALES REFERENCE	PJ921
161-562427-001	
DATE	MAY, 2004

## Type HL-T Hazardous Location Tee Splice Kit for Self-Regulating Heating Cables



### HL-T Kit Parts:

Qty	Description
1	3/4" Box
2	Cable entry fitting
3	3/4" Seal fitting with nipple
2	Sealing compound & fiber
3	4" 12 AWG leadwires green
1	Small RTV tube
3	Butt splice
3	Ring terminal
1	Pipe standoff
1	Sealing grommet
1	Stainless steel label
1	Extra grounding screw
2	Wire nuts
3	Power termination seal
2	3/4" to 1/2" reducing bushing

### GENERAL

The HL-T hazardous location tee splice kit is used to make tee splices with self-regulating cables in hazardous Division 1 areas. Each kit contains the terminations and explosion proof seal parts

needed to make all electrical connections. Panduit CT-100 crimping tool or equivalent required.

## INSTALLATION

### ⚠ WARNING

**HAZARD OF ELECTRIC SHOCK. Disconnect all power before starting. All installations must be effectively grounded in accordance with the National Electrical Code to eliminate shock hazard.**

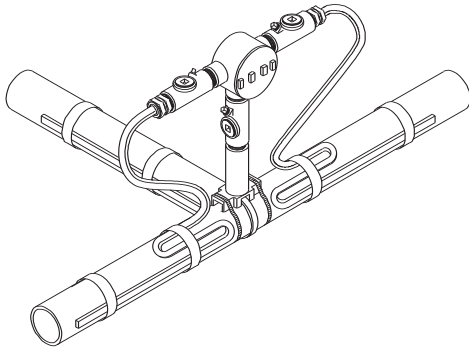
### ⚠ WARNING

**The system designer is responsible for the safety of this equipment and should install adequate back-up controls and safety devices with their electric heating equipment. Where the consequences of failure could result in personal injury or property damage, back-up controls are essential.**

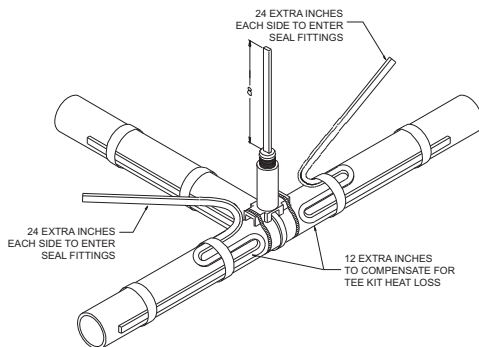
### ⚠ WARNING

**Explosion Hazard. Turn off power before removing junction box cover at all times.**

1. Allow 36 inches of heating cable for each side run. 12 inches are needed on pipe near the standoff to compensate for the heat loss of the tee kit. 24 inches are required to reach side seal fittings. For run entering through the pipe standoff allow enough cable to leave 8 inches past end of standoff.



2. Attach pipe standoff and sealing grommet with pipe straps. Check for allowances of additional cable for the kit as shown.



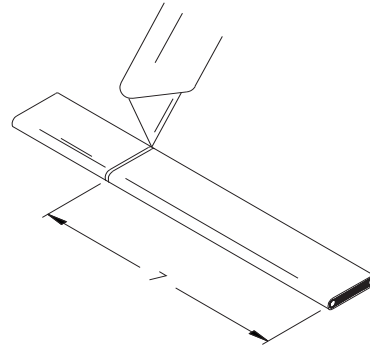
3. Strip and prepare for termination the cable running through pipe standoff according to overjacket stripping procedure below.

#### Overjacket Stripping Procedure

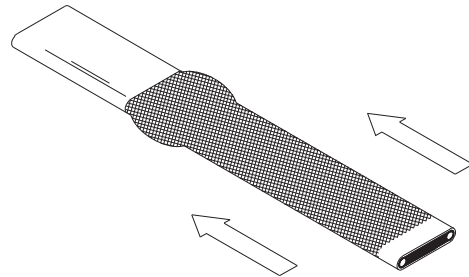
4. Score the outer insulation 7 inches from the end of the cable. Lightly cut the outer jacket up the center to the end of heating cable and remove the outer jacket from the cable.

### ⚠ WARNING

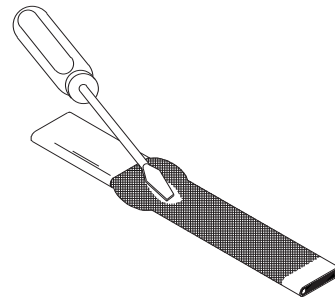
**Do not cut through metal braid. Effective ground cannot be established if the metal braid is removed.**



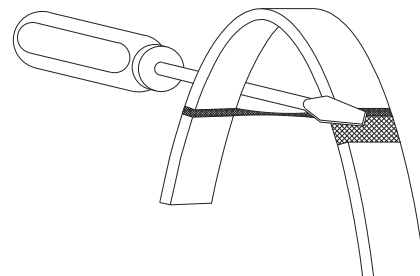
5. Move braid back toward the overjacket, creating a bulge.



6. At the bulge, separate the braid to make an opening.

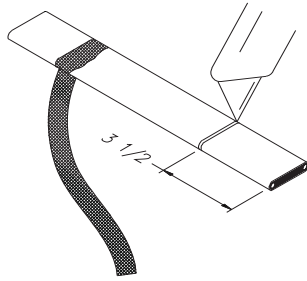


7. While bending the heating cable, work the cable through the braid opening. Pull the braid tight.

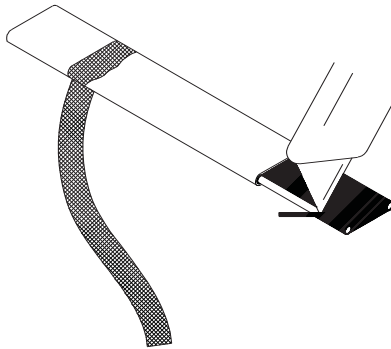


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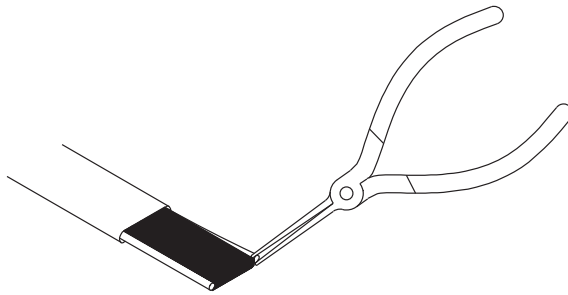
8. Score the inner insulation 3 1/2 inches from the end. Lightly cut the inner jacket up the center to end of heating cable and remove the inner jacket from the cable.



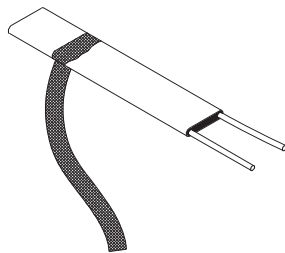
9. Shave the core material from the outside of each bus wire.



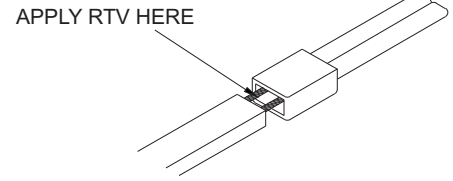
10. Starting at the end of the heating cable, pull each bus wire away from the core material..



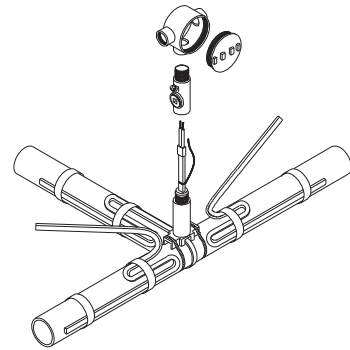
11. Remove the exposed core material and cut 1/4" off the end of each bus wire.



12. Liberally apply RTV over the exposed matrix and leads. Push the rubber boot over the heating cable. Trim lead ends as needed.

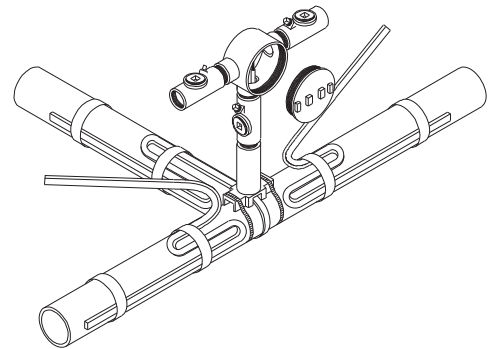


13. Slide on first seal fitting and tighten to a minimum of 5 full threads of engagement. Slide on junction box; also tighten to a minimum of 5 full threads of engagement.

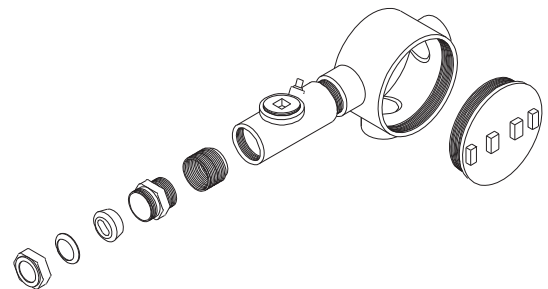


14. Attach 2nd and 3rd seal fittings. Tighten to a minimum of 5 full threads of engagement.

**Note:** The heating cable must be positioned in the seal fitting so the braid transition point is visible through the seal fitting opening. See page 5.

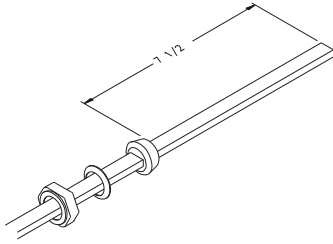


15. Remove the metal end cap, compression ring, and sealing grommet from the cable entry seal and thread the cable entry seal to the reducer bushing. Thread the reducer bushing to the seal fitting. Tighten both to a minimum of 5 full threads of engagement.



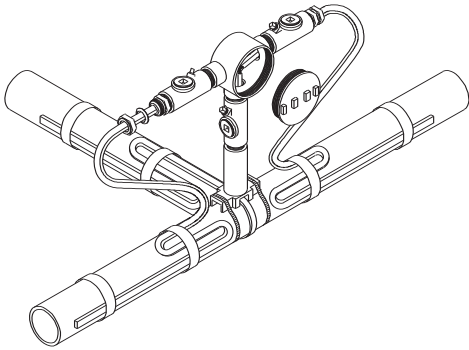
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16. For the side runs slide the metal end cap, compression ring, and sealing grommet over the heating cable. Position the sealing grommet  $7\frac{1}{2}$  inches from the end of the heating cable.

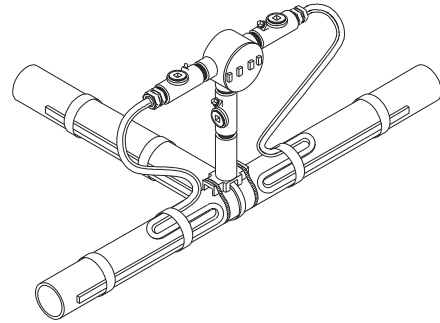


17. Strip and prepare for termination the cable for the two side runs according to overjacket stripping procedure.
18. Remove box cover and box cover gasket from the junction box, place the silicone rubber boot through the seal fitting. Slide forward until the sealing grommet is flush with the entry seal. Slide the compression ring and metal end cap forward and thread onto the cable entry seal. Tighten until metal cap bottoms out on cable entry fitting. Repeat installation for 3rd seal fitting.

**Note:** The heating cable must be positioned in the seal fitting so the braid transition point is visible through the seal fitting opening. See page 5.

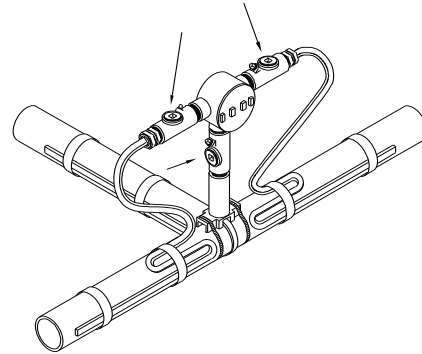


19. Wire nut the bus wires together accordingly. Connect the grounding braids to the green grounding leads provided with the butt splices. Crimp the ring tongue to the grounding lead and attach the terminals to the junction box with the grounding screws. Attach two ring terminals to the box with the supplied extra grounding screw. Attach the third ring terminal to the box with the grounding screw supplied with the box. Thread the box cover gasket, box cover, and conduit plug onto the junction box.



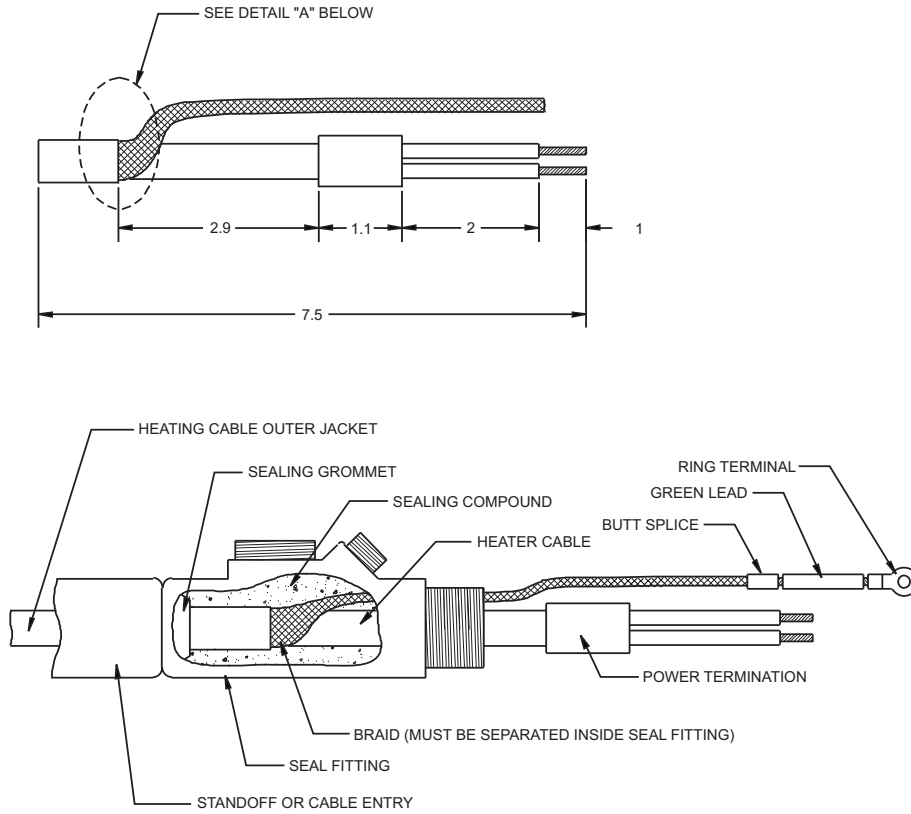
### Sealing compound

20. Center the heating cable in the conduit opening. See page 5. Using the fiber included, pack around the heating cable forming a dam to hold the sealing compound.



21. Mix the sealing compound according to the instructions of the pouch. Fill the seal fittings.
22. Attach stainless steel label with wire ties wrapping around kit between seal fitting and junction box.

**INSTALLATION**



DETAIL "A"

**Limited Warranty:**

Please refer to the Chromalox limited warranty applicable to this product at <http://www.chromalox.com/customer-service/policies/termsofsale.aspx>.

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